

Maine Correctional Center)	Departmental
Cumberland County)	Findings of Fact and Order
South Windham, Maine)	Air Emission License
A-129-71-E-N)	After-the-Fact

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Maine Correctional Center (MCC) of South Windham, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their correctional facility.

B. Emission Equipment

MCC is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	16.7	111.5	#4 fuel oil, 0.5%	1
Boiler #2	16.7	111.5	#4 fuel oil, 0.5%	1

*MCC shall fire #4 fuel oil with a maximum sulfur content of 1.0% by weight through July 2001, after which the maximum sulfur content shall be 0.5% by weight.

Emergency Generator Units

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Power Output</u>
Generator #1	4.1	30 gal/hr	558 kW
Generator #2	4.1	30 gal/hr	558kW

C. Application Classification

The last license for MCC has lapsed, therefore, this application is treated as an application for a new source, and is subject to BACT (Best Available Control Technology).

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers

Boilers #1 and #2 are each 16.7 MMBtu/hr boilers which burn #4 fuel oil with a maximum sulfur content of 1.0% through July 2001, after which the maximum sulfur content shall be 0.5% by weight. Both boilers were installed prior to June 9, 1989 and are therefore not subject to New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon MEDEP Chapter 103.
2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 factors dated 9/98 for fuel oil combustion in units rated at less than 100 MMBtu/hr.
3. Visible emissions from Stack #1 shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in any three-hour period.

C. Emergency Diesel Generators

Generators #1 and #2 are utilized primarily to provide emergency back-up power to the facility. Fuel use for each diesel unit shall not exceed 3,000 gallons per year of diesel fuel, based on a 12-month rolling total, with a maximum sulfur content of 0.05% by weight.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon MEDEP Chapter 103.
2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 factors dated 10/96 for uncontrolled diesel engines.
3. Visible emissions from each diesel generator shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in any three-hour period.

D. Annual Emission Restrictions

MCC shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	2.5
PM ₁₀	2.5
SO ₂	9.5
NO _x	4.4
CO	1.1
VOC	0.3

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling was performed for the 1995 license, at which time it was determined that the facility would not cause or significantly contribute to a violation of MAAQS for SO₂, PM₁₀, NO₂, and CO or to Class II increment standards for SO₂, TSP and NO₂.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-129-71-E-R subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances

representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Boilers #1 and #2
- A. Capacity shall not exceed 16.7 MMBtu/hr in each boiler.
 - B. Fuel use shall not exceed 250,000 gallons/yr of #4 fuel oil based on a 12-month rolling total with a maximum sulfur content of 1.0% by weight through July 2001, after which the maximum sulfur content shall be 0.5% by weight

Emission limits from the previous license shall apply until July 30, 2001, and the limits in this license shall become effective on August 1, 2001. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

C. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	2.01	2.01	8.37	2.23	0.56	0.03
Boiler #2	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	2.01	2.01	8.37	2.23	0.56	0.03

- (17) Visible emissions from Stack #1 shall be limited to 30% opacity based on a six-minute block average basis, except for no more than 2 six-minute block averages in any three-hour period.
- (18) MCC shall maintain fuel use records and fuel purchase receipts indicating the percent sulfur content, and shall make records available to the Department upon request.
- (19) Boilers #1 and #2 shall not operate concurrently, except during boiler switchover, in which case concurrent operation shall not exceed 24 hours in any continuous period.
- (20) Emergency Diesel Generators #1 and #2
- A. Capacity shall not exceed 4.1 MMBtu/hr in each generator.
- B. Fuel use for each diesel unit shall not exceed 3,000 gallons/yr of diesel fuel with a maximum sulfur content of 0.05% by weight, based on a 12-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.
- C. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Generator #1	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.50	0.50	0.21	18.08	3.90	1.44
Generator #2	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.50	0.50	0.21	18.08	3.90	1.44

Maine Correctional Center
Cumberland County
South Windham, Maine
A-129-71-E-N

)
)
)
8

Departmental
Findings of Fact and Order
Air Emission License
After-the-Fact

- (21) Visible emissions from each diesel generator shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute blocks in any three-hour period.
- (22) Fuel use records and receipts for Generators #1 and #2 shall be maintained and made available to the Department upon request. Logbooks shall be maintained indicating the time, date and duration of operation and the meter reading in hours.
- (23) Generators #1 and #2 are subject to the emergency SICE (Stationary Internal Combustion Engine) guidelines listed below:
1. Each emergency SICE shall not operate for more than 100 hours per year.
 2. Redundant emergency SICE may operate not more than 100 hours per year combined.
 3. Each SICE shall be equipped with an hour meter.
 4. The licensee shall keep records of the total hours of operation.
 5. Should operation exceed 100 hours during any rolling 12-month period, the licensee shall within 4 working days notify the Department of the excess operation.
- (24) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 26, 2000

Date of application acceptance: June 19, 2000

Date filed with the Board of Environmental Protection: _____

This Order prepared by Elisha McVay, Bureau of Air Quality.